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REMARKS

This submission under 37 C.F.R. 1.114 accompanies Applicants' Request for Continued Examination (RCE) and is in supplemental response to the final Office Action mailed June 2, 2005. By this response, claims 1, 2, 4, 11 and 17 are amended. Claims 35-36 are new. No new matter has been added.

In view of the following discussion, Applicants submit that none of the claims now pending in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §102 or §103. Thus, Applicants believe that all of these claims are now in allowable form.

It is to be understood that Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

OBJECTIONS

The Examiner has objected to the Abstract because it exceeds the maximum length of 150 words. Applicants' amended Abstract includes fewer than 150 words.

REJECTIONS

35 U.S.C. §102

Claims 1, 2, 4, 5, 8, 11-19, 24 and 27-33

The Examiner has rejected claims 1, 2, 4, 5, 8, 11-19, 24 and 27-34 under 35 U.S.C. §102(e) as being anticipated by Mimura et al. (US006557031B1, hereinafter "Mimura"). Applicants respectfully traverse the rejection.

Independent claims 1 and 17 recite features of Applicants' invention that Applicants consider to be inventive. In particular, independent claims 1 and 17 recite:

1. A method of streaming content via a distribution network to any of a plurality of heterogeneous access networks, comprising:
retrieving from a local streaming server, content encapsulated according to an Internet Protocol (IP) packet structure;

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processing, at said local streaming server, said retrieved content into a format native to an access network from which a user request originated; and streaming processed content to said access network via said distribution network, said distribution network format being different than said access network formats. (emphasis added).

17. An apparatus providing scalable streaming of content to at least one access network of a plurality of heterogeneous access networks associated with an interactive information distribution system, said apparatus comprising:

at least one stream caching server for streaming said content as an Internet Protocol (IP) packet to said at least one access network via a stream distribution network in response to a request for content, said content being encapsulated within said IP packet; and

a packet processor coupled to said at least one stream caching server for processing said encapsulated content within said IP packets into at least one packet in a format native to said at least one access network of said plurality of heterogeneous access networks prior to streaming said IP packet to said at least one access network via said stream distribution network, wherein the format of said distribution system is different than the formats of said access networks. (emphasis added).

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). The Mimura reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

The Mimura reference is directed to a transfer protocol conversion method and equipment in order to transmit MPEG-TS packets for a CATV network by use of IP packets for the internet. The system uses the interworking units to convert the video streams between those two protocols. Specifically, if a set top box (STB) 57 were to receive a video signal, the signal is first transmitted in MPEG protocol from the video server 60 which stores the video. It is transmitted through a CATV network 61. Then, it

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will be converted by an interworking unit 62 to IP packets. Those packets will travel through the internet 50 to the interworking unit 54 where they will be converted back to MPEG protocol which is routed to the STB through the CATV network. (See Mimura, fig, 9).

The protocol conversion occurs only at the interworking units. Nowhere in the Mimura reference is there any teaching or suggestion of " streaming processed content" or "processing said encapsulated content within said IP packets into at least one packet in a format native to said at least one access network of said plurality of heterogeneous access networks prior to streaming said IP packet to said at least one access network via said stream distribution network." Furthermore, Mimura does not disclose, teach or suggest formatting the content into a format for the distribution system and the access network, wherein the format of said distribution system is different than the formats of said access networks.

As such, Applicants submit that independent claims 1 and 17 are not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Furthermore, claims 2, 4, 5, 8, 11-16, 18, 19, 24 and 27-33 depend, either directly or indirectly, from independent claims 1 and 17 and recite additional features thereof. As such and at least for the same reasons as discussed above, Applicants submit that these dependent claims are also not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder for at least the above reason. Therefore, Applicants respectfully request that the rejections be withdrawn.

35 U.S.C. §103

Claims 9, 10, 20, 25 and 26

The Examiner has rejected claims 9, 10, 20, 25 and 26 under 35 U.S.C. §103(a) as being unpatentable over the Mimura reference. Applicants respectfully traverse the rejection.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as

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a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Mimura reference fails to teach or suggest Applicants' invention as a whole.

Claims 9, 10, 20, 25 and 26 respectively depend from independent claims 1 and 17 and recite additional features thereof. As discussed above, nowhere in the Mimura reference is there any teaching, or even suggestion of "processing said encapsulated content within said IP packets into at least one packet in a format native to said at least one access network of said plurality of heterogeneous access networks prior to streaming said IP packet to said at least one access network via said stream distribution network." Moreover, Mimura does not disclose, teach or suggest formatting the content into a format for the distribution system and the access network, wherein the format of said distribution system is different than the formats of said access networks. Therefore, the Mimura reference fails to teach or suggest Applicants' invention as a whole.

As such, Applicants submit that dependent claims 9, 10, 20, 25 and 26 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder for at least the above reason. Therefore, Applicants respectfully request that the rejection be withdrawn.

Claims 3 and 23

The Examiner has rejected claims 3 and 23 under 35 U.S.C. §103(a) as being unpatentable over Mimura in view of Zheng et al. (US006611522B1, hereinafter "Zheng"). Applicants respectfully traverse the rejection.

As discussed above, the Mimura reference does not teach or suggest Applicants' invention as disclosed and claimed in independent claims 1 and 17 as a whole. Claims 3 and 23 depend directly or indirectly from Applicants' independent claims 1 and 17. Therefore, for at least the same reasons as discussed above with respect to Applicants' independent claims 1 and 17, the Mimura reference fails to teach or suggest Applicants' invention as a whole.

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Furthermore, the Zheng reference fails to bridge the substantial gap between the Mimura reference and Applicant's invention. In particular, the Zheng reference discloses"

"The transmit ASIC 71 on the line card 53 packages the data (i.e. encapsulates) in a format that is appropriate for the destination. The QoS output portion 71a schedules and shapes the output of the packaged data, based on classification information provided by the QoS input portion 70a. The QoS output portion 71a may also drop or mark the packaged data, based on the congestion status at the output ports. (See Zheng, column 11, line 34 to column 12, line 14).

Even if the two references could somehow be operably combined, the combination would merely disclose sending IP packets formatted for a particular quality of service to subscribers over a homogeneous network. Nowhere in the combined references is there any teaching or suggestion of "processing said encapsulated content within said IP packets into at least one packet in a format native to said at least one access network of said plurality of heterogeneous access networks prior to streaming said IP packet to said at least one access network via said stream distribution network." Furthermore, Mimura does not disclose, teach or suggest formatting the content into a format for the distribution system and the access network, wherein the format of said distribution system is different than the formats of said access networks. Therefore, the combined references fail to teach or suggest Applicants' invention as a whole.

For at least the reasons discussed above, Applicants submit that claims 3 and 23 are patentable under 35 U.S.C. §103 over Mimura in view of Zheng. Therefore, Applicants respectfully request that the Examiner's rejection be withdrawn.

Claims 6, 7, 21 and 22

The Examiner has rejected claims 6, 7, 21 and 22 under 35 U.S.C. §103(a) as being unpatentable over Mimura in view of Wahl (US005898456A, hereinafter "Wahl"). Applicants respectfully traverse the rejection.

As discussed above, the Mimura reference does not teach or suggest Applicants' invention as disclosed and claimed in independent claims 1, 17 and 34 as a whole.

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Claims 6, 7, 21 and 22 depend directly or indirectly from Applicants' independent claims 1 and 17. Therefore, for at least the same reasons as discussed above with respect to Applicants' independent claims 1 and 17, the Mimura reference fails to teach or suggest Applicants' invention as a whole.

Furthermore, the Wahl reference fails to bridge the substantial gap between the Mimura reference and Applicants' invention. In particular, the Wahl reference discloses:

"The local servers are the subordinate servers and the central servers are the superordinate servers. If a user requests a movie, it is transmitted by the server close to the user (local server). If the local server cannot comply with the user's request, the local server requests a copy of the requested movie from the central server, which is stored in the local server via downloading. The local server has a reserve memory for storing the movie transmitted by the central server." (See Wahl, column 1, lines 32-40).

Even if the two references could somehow be operably combined, the combination would merely disclose streaming content from a central server to a local server, and streaming the content from the local server to a requesting subscriber via a homogeneous network. Nowhere in the combined references is there any teaching or suggestion of "processing said encapsulated content within said IP packets into at least one packet in a format native to said at least one access network of said plurality of heterogeneous access networks prior to streaming said IP packet to said at least one access network via said stream distribution network." Furthermore, Mimura does not disclose, teach or suggest formatting the content into a format for the distribution system and the access network, wherein the format of said distribution system is different than the formats of said access networks. Therefore, the combination of Mimura and Wahl fails to teach or suggest Applicants' invention as a whole.

For at least the reasons discussed above, Applicants submit that claims 6, 7, 21 and 22 are patentable under 35 U.S.C. §103 over Mimura in view of Wahl. Therefore, Applicants respectfully requests that the Examiner's rejection be withdrawn.

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OFFICIAL NOTICES

The Examiner takes numerous Official Notices in the Office Action. For example, see page 8 of the present Office Action. Applicant hereby traverses each Official Notice. The Examiner alleges that apparatuses and/or methods recited in certain claims are well known in the art. However, the Applicant believes that these apparatuses and/or methods rejected by the Examiner using Official Notice may not be well known within the specific art of the present invention as recited in the pending claims. For example, the allegedly well known limitations may not be well known to be used in combination with other limitations of the claims in which they are found or in claims from which they depend.


CONCLUSION

Thus, Applicants submit that all of the claims presently in the application are not anticipated, non-obvious and patentable under the respective provisions of 35 U.S.C. §102 and §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at 732-530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 8/2/05



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